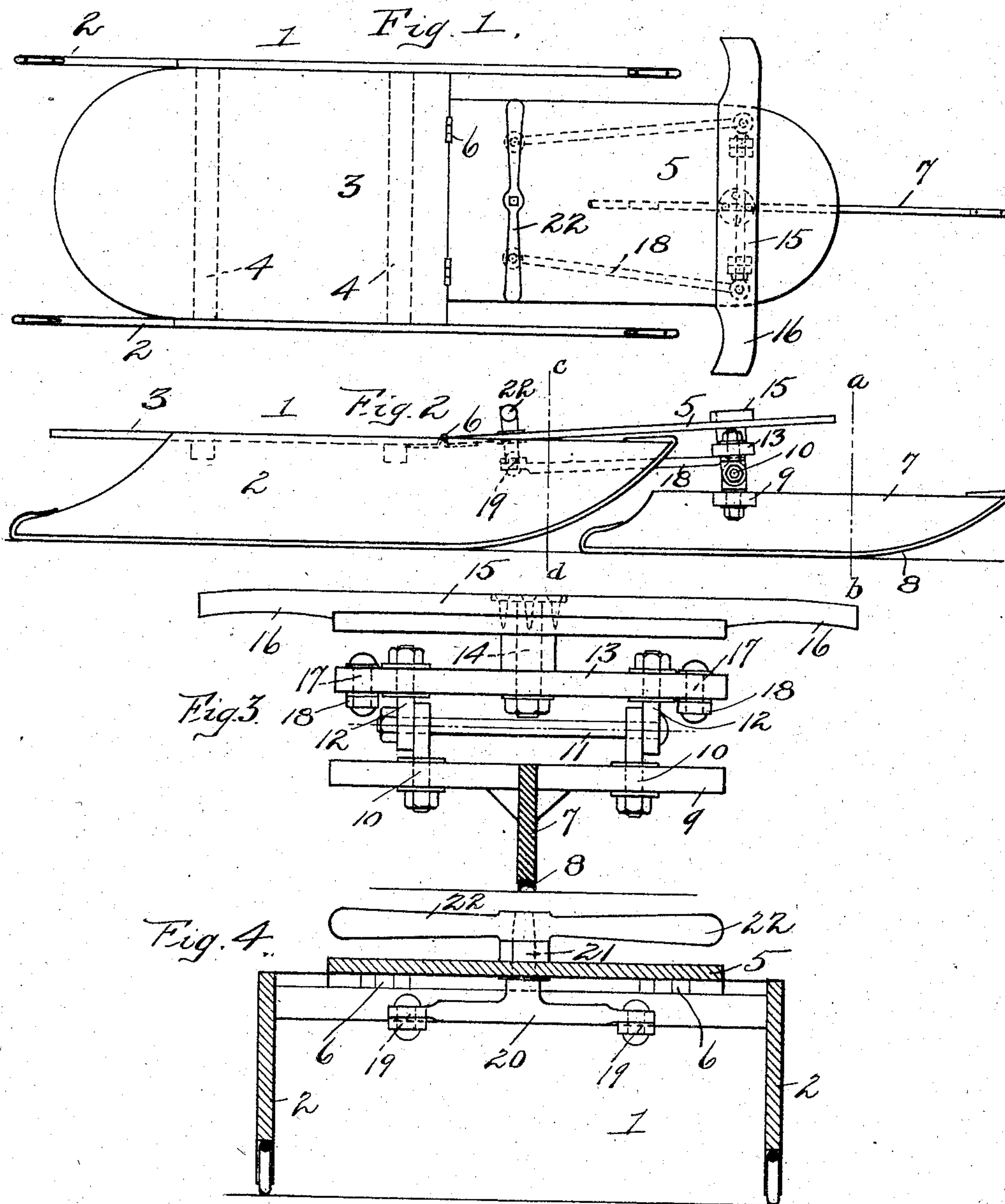


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PATENTED JUNE 6, 1905.

P. V. FEE.
COASTING SLED.
APPLICATION FILED JAN. 14, 1905.



WITNESSES:

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COASTING-SLED.

SPECIFICATION forming part of Letters Patent No. 791,683, dated June 6, 1905.

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To all whom it may concern:

Be it known that I, PAUL V. FEE, a citizen of the United States, residing at Altoona, in the county of Blair and State of Pennsylvania, have invented new and useful Improvements in Coasting-Sleds, of which the following is a specification.

This invention relates to hand-sleds of the coasting type wherein provision is made for placing the steering or guiding of the sled under the complete control of the coaster.

To this end the invention contemplates a simple and practical form of steering attachment which can be associated with an ordinary single hand-sled to convert the same into a complete coasting apparatus equipped with means for positively and accurately steering the course thereof.

The invention also has in view a special construction and arrangement of steering mechanism which obviates the usual difficulty in keeping the body of the person erect when curving at high speeds, inasmuch as provision is made for steering by the hands, while the feet are so arranged and supported as to keep the body in balance. In this connection a further object attained is the provision of construction which does not compel the coaster to lie down with his face prone on the steering-gear, which position is not only objectionable but dangerous.

Another object of the invention is to so arrange the steering attachment in connection with the main sled-body as to permit the entire attachment to be thrown back upon the sled-platform, so as to be entirely out of the way and out of use in transporting the sled from point to point. This idea is also useful in steering purposes.

With these and other objects in view, which will more readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts, which will be hereinafter more fully described, illustrated, and claimed.

The essential features of the invention involved in mounting of the steering attachment and the construction of the steering mechanism proper are necessarily susceptible

to structural change without departing from the scope of the invention; but a preferred embodiment thereof is shown in the accompanying drawings, in which—

Figure 1 is a top plan view of a coasting sled or device embodying the present invention. Fig. 2 is a side view thereof. Figs. 3 and 4 are sectional views respectively on the lines *a b* and *c d* of Fig. 2.

Like reference-numerals designate corresponding parts in the several figures of the drawings.

In carrying out the present invention no special change is required in the ordinary form of hand-sled in adapting the steering attachment thereto. Hence for illustrative purposes the coasting device or sled is shown in the drawings as including in its general organization an ordinary type of hand-sled (designated in its entirety by the numeral 1) and which may be properly termed the "main" sled-body. This main sled-body essentially comprises the oppositely-arranged side runners 2 and the platform-seat 3, arranged between the runners 2 and mounted on the usual cross-cleats 4, connecting and bracing the said runners, said platform-seat constituting the ordinary top member of the sled upon which the coaster sits or lies.

The steering attachment proper includes as the main supporting member thereof a carrying-platform 5, arranged between the projecting front ends of the main sled-runners 2 and when in its lowered operative position constitutes, in effect, an extension of the main sled seat or platform 3. In adapting the steering attachment to the sled or sled-body proper the said carrying-platform 5 is preferably connected to the front end of the sled-seat 3 by means of suitable hinges 6, which permits said platform 5, with all of the parts supported and carried thereby, to be folded back upon the sled-seat, and thereby entirely out of the way, should this be desired for transporting or storing purposes.

As indicated, the platform 5 supports and carries all parts of the steering mechanism, which includes as the primary and effective element thereof a single guiding-runner 7, preferably made in the conventional form of

an ordinary sled-runner and provided along the sliding or bottom edge thereof with a runner-shoe 8, which, as shown in the sectional view of Fig. 3, may be of a grooved formation to insure easy running, besides checking slipping of the guide when rounding curves at high speeds.

When the steering attachment is lowered to an operative position, the guiding-runner 7 is arranged to operate in a plane between the side runners of the main sled-body, and at an intermediate point, preferably near the rear end thereof, the said guiding-runner has rigidly connected therewith the cross-bar 9, to the oppositely-extending portions of which are secured the upstanding eyebolts 10. The eyes of these bolts constitute bearings which engage a horizontal pivot-rod 11, arranged above and parallel with the cross-bar 9 and having its opposite ends mounted in the pendent eyes of the oppositely-arranged hanger-eyebolts 12, which are secured in opposite end portions of a horizontally-oscillating steering-bar 13. This horizontally-oscillating steering-bar is mounted centrally between its ends on the lower end of a center bolt 14, which passes upward through the platform 5 and is connected to the central portion of a transverse foot-rest 15 and extending across the front end portion of the platform 5 and having terminal foot-engaging portions 16. To the extreme ends of the horizontally-oscillating steering-bar 13 are pivotally connected, as at 17, the front ends of the opposite adjusting-rods 18, the rear ends of which are pivotally connected at 19 to opposite extremities of a cross-arm 20, carried at the lower end of a turn-post 21, extending through the bearing in the platform 5 and having mounted on its upper end a steering-handle 22, normally lying transversely over the rear end portion of the platform 5.

From the foregoing it will be observed that through the medium of the hand and foot connections for the operator the steering of the

coasting-sled is under the perfect control of the coaster, while at the same time the advance runner is perfectly free to rock practically to adapt itself to the inequalities of the surface over which the sled is coasting.

Various changes in the form, proportion, and minor details of construction may be resorted to without departing from the scope of the invention or sacrificing any of the advantages thereof.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

1. In a coasting-sled, the combination with the sled-body, of a steering attachment comprising a platform lying between the front extensions of the runners and having a hinge connection with the front edge of the sled-seat, and a steering mechanism carried by said platform consisting of a single guiding-runner pivotally suspended beneath the front end portion of the platform, an oscillatory steering-bar connected with the pivotal support of the runner, and steering connections with said bar.

2. In a coasting-sled, the combination with the main sled-body, of a steering attachment comprising a platform connected with the sled-body, a foot-rest arranged transversely of the platform, a center bolt connected with said rest and extending below the platform, an oscillating steering-bar mounted on the lower end of said center bolt and carrying a horizontally-arranged pivot-rod, a single guiding-runner having a rigid cross-bar, bearing bolt connections between this bar and said pivot-rod, a steering-handle carrying a cross-arm, and rod connections between said cross-arm and the steering-bar.

In testimony whereof I affix my signature in presence of two subscribing witnesses.

PAUL V. FEE.

Witnesses:

FRED. A. WHITTAKER,
ALLEINE FEE.